

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
9 August 2001 (09.08.2001)

PCT

(10) International Publication Number
WO 01/56596 A1

- (51) International Patent Classification⁷: **A61K 38/46**, 48/00, A61P 9/10, 3/06
- (21) International Application Number: PCT/US01/03481
- (22) International Filing Date: 2 February 2001 (02.02.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/180,362 4 February 2000 (04.02.2000) US
Not furnished 2 February 2001 (02.02.2001) US
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- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: USE OF LYSOSOMAL ACID LIPASE FOR TREATING ATHEROSCLEROSIS AND RELATED DISEASES

(57) Abstract: The present invention comprises a method to diminish and/or eliminate atherosclerotic plaques, in mammals, through direct and indirect treatment of these plaques, *in situ*, using suitable substances which are capable of lipid removal, primarily through hydrolysis, either by a catalytic or stoichiometric process, wherein the substance targets receptors in and/or on the cell which lead to uptake into the lysosome. Such substances used to diminish and/or eliminate atherosclerotic plaques are generally comprised of lipid hydrolyzing proteins and/or polypeptides.

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INTERNATIONAL SEARCH REPORT

ational Application No

PCT/US 01/03481

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 A61K38/46 A61K48/00 A61P9/10 A61P3/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

CHEM ABS Data, WPI Data, PAJ, EPO-Internal, BIOSIS, MEDLINE, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y <u>get</u>	ESCARY, JEAN-LOUIS ET AL: "Hormone-sensitive lipase overexpression increases cholesteryl ester hydrolysis in macrophage foam cells" ARTERIOSCLER., THROMB., VASC. BIOL. (1998), 18(6), 991-998, XP002168196 * see abstract and page 997 last paragraph *	1-6, 8-24, 26-39, 41-51, 53-56, 58-62, 64-68
Y	SHERIFF ET AL.: "Characterization of lysosomal acid lipase by site-directed mutagenesis and heterologous expression." J. BIOL. CHEM., vol. 270, 1995, pages 27766-27772, XP000986290 * see abstract and page 27771 left col. *	1-6, 8-24, 26-39, 41-51, 53-56, 58-62, 64-68



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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Date of the actual completion of the international search

23 May 2001

Date of mailing of the international search report

22/06/2001

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/03481

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	DU HONG ET AL.: "Two polymorphic forms of human lysosomal acid lipase have different level of activity." AM. J. HUMAN GENET., vol. 57, 1995, page A178 XP000996468 * abstract *	1-6, 8-24, 26-39, 41-51, 53-56, 58-62, 64-68
Y	DU HONG ET AL.: "Targeted disruption of the mouse lysosomal acid lipase gene : long-term survival with massive cholesteryl ester and triglyceride storage." HUMAN MOLECULAR GENETICS., vol. 7, 1998, pages 1347-1354, XP000996474 * see abstract and page 1347 right col. *	1-6, 8-24, 26-39, 41-51, 53-56, 58-62, 64-68
X	READER ET AL.: "Expression of adenoviral vector containing the cDNA for human lysosomal acid lipase in Hela and Wolman cells." FASEB J., vol. 10, 1996, page A233 XP000996487 * abstract *	51,53, 54,56, 58,59
Y		1-6, 8-24, 26-39, 41-51, 53-56, 58-62, 64-68
X	"Sigma Chemie, product catalogue : Biochemikalien, organische Verbindungen und Diagnostika." 1996, SIGMA CHEMICAL CO. XP002168197 * see page 271, products C9281, C9406 and C1403 *	35-31-39, 41,49,50